

FIG. 1

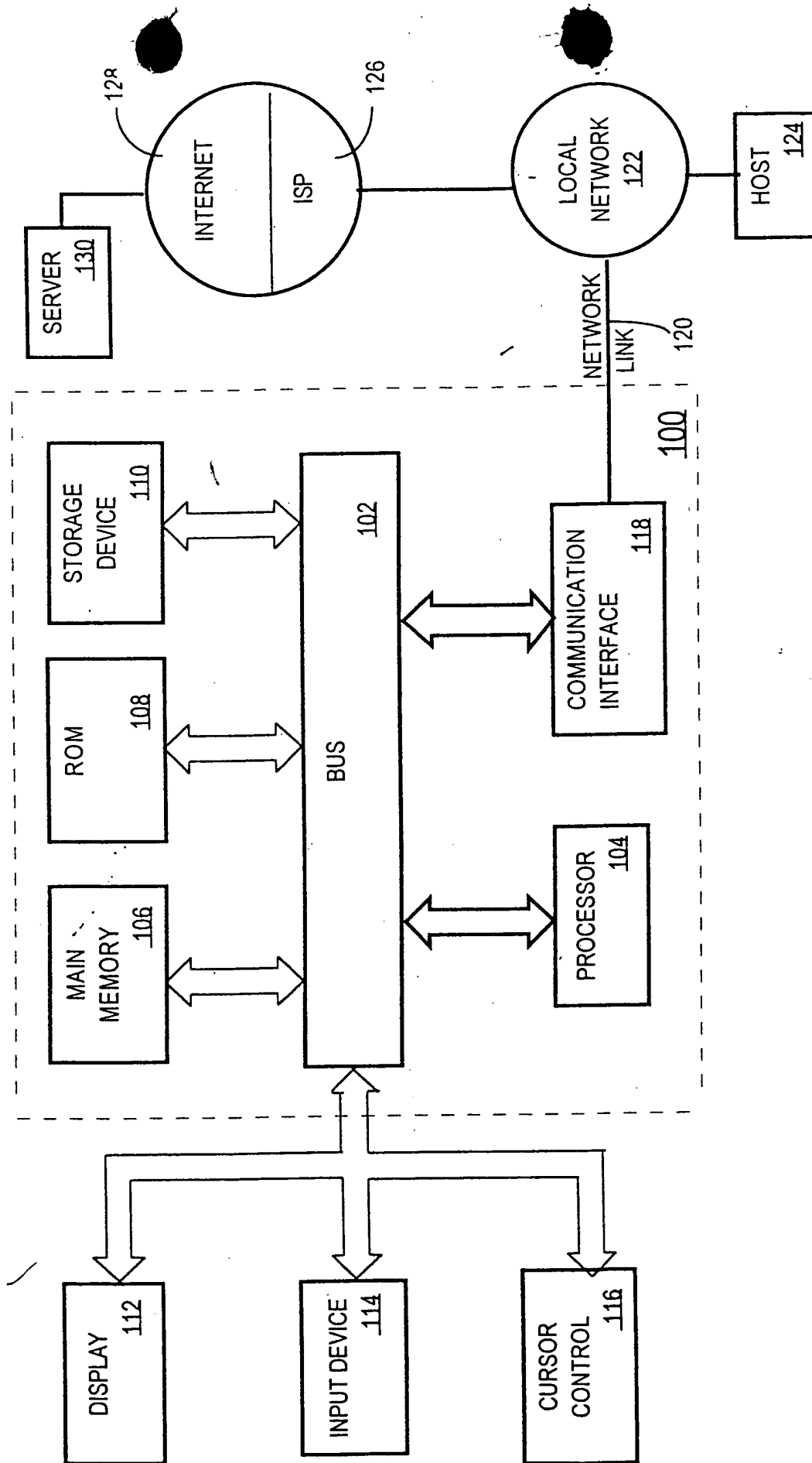


FIG. 3A

FORMER- EMPLOYEE Table Definition

Create Table FORMER EMPLOYEE (

NAME VARCHAR (30),
SSN VARCHAR (11),
STATE VARCHAR (2));

FIG 3B

Table FORMER_EMPLOYEE

Name	SSN	State
Frank Doe	999-99-997	CA
Jane Doe	999-99-998	CA

09547191-041100 DOT.T40.T6T24560

[illegible]

Create Type OT_EMPLOYEE As Object (

FIG. 3D

308

OID	Name	SSN	State
000000	John Doe	999-99-9999	CA
000001	Jane Doe	999-99-9998	AL

FIG. 3G

Create View OV_STATE_FEMPLOYEE of OT_SEMEMPLOYEE

AS Select FORMER__EMPLOYEE. NAME,
FORMER_EMPLOYEE. SSN,
STATE. NAME

From FORMER_EMPLOYEE,

STATE

Where FORMER_EMPLOYEE. STATE=STATE. ABBR;

FIG. 3H

TABLE STATE

NAME	ABBR
California	CA
Alabama	AL

FIG. 3E

Create View OV_FEMPLOYEE of OT_EMPLOYEE
With Object OID (SSN)
As Select NAME, SSN, STATE
From FORMER_EMPLOYEES

FIG. 3F

360

OID	NAME	STATE
999-99-9999	Frank Doe	CA
999-99-9998	Jane Doe	CA

001140" 16124560

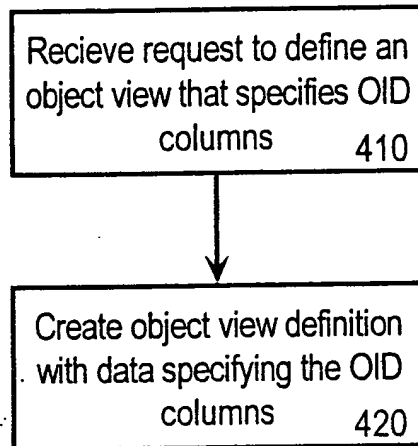


Fig. 4A

00T40"TSF24560

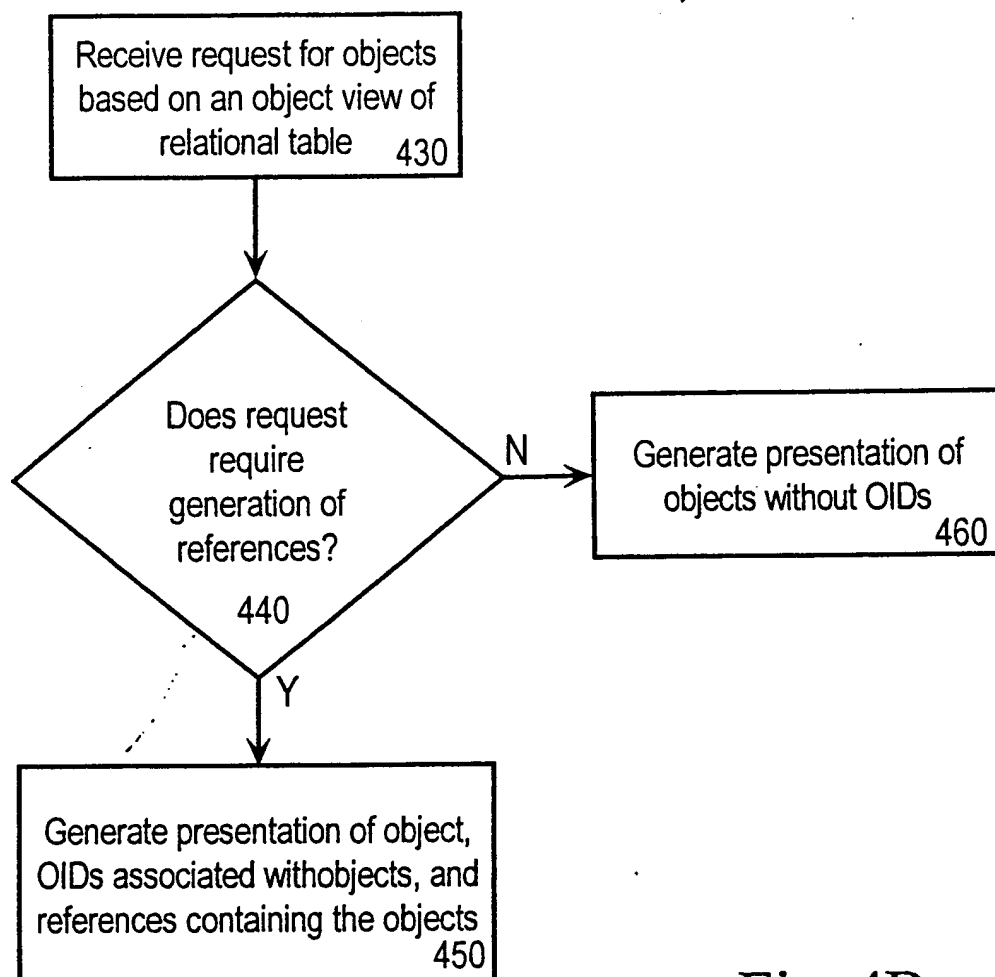


Fig. 4B

007740" T6T24560

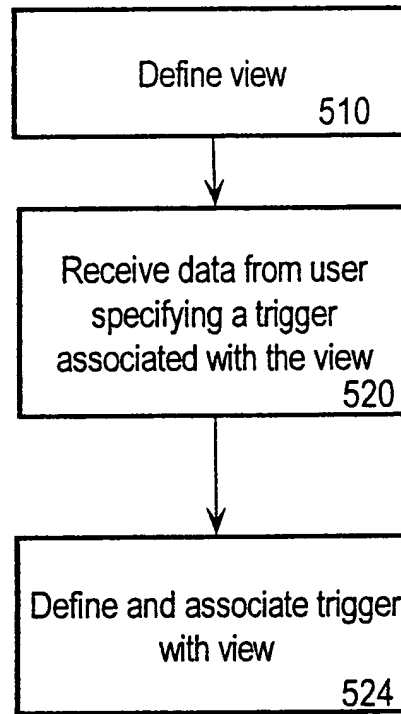


Fig. 5A

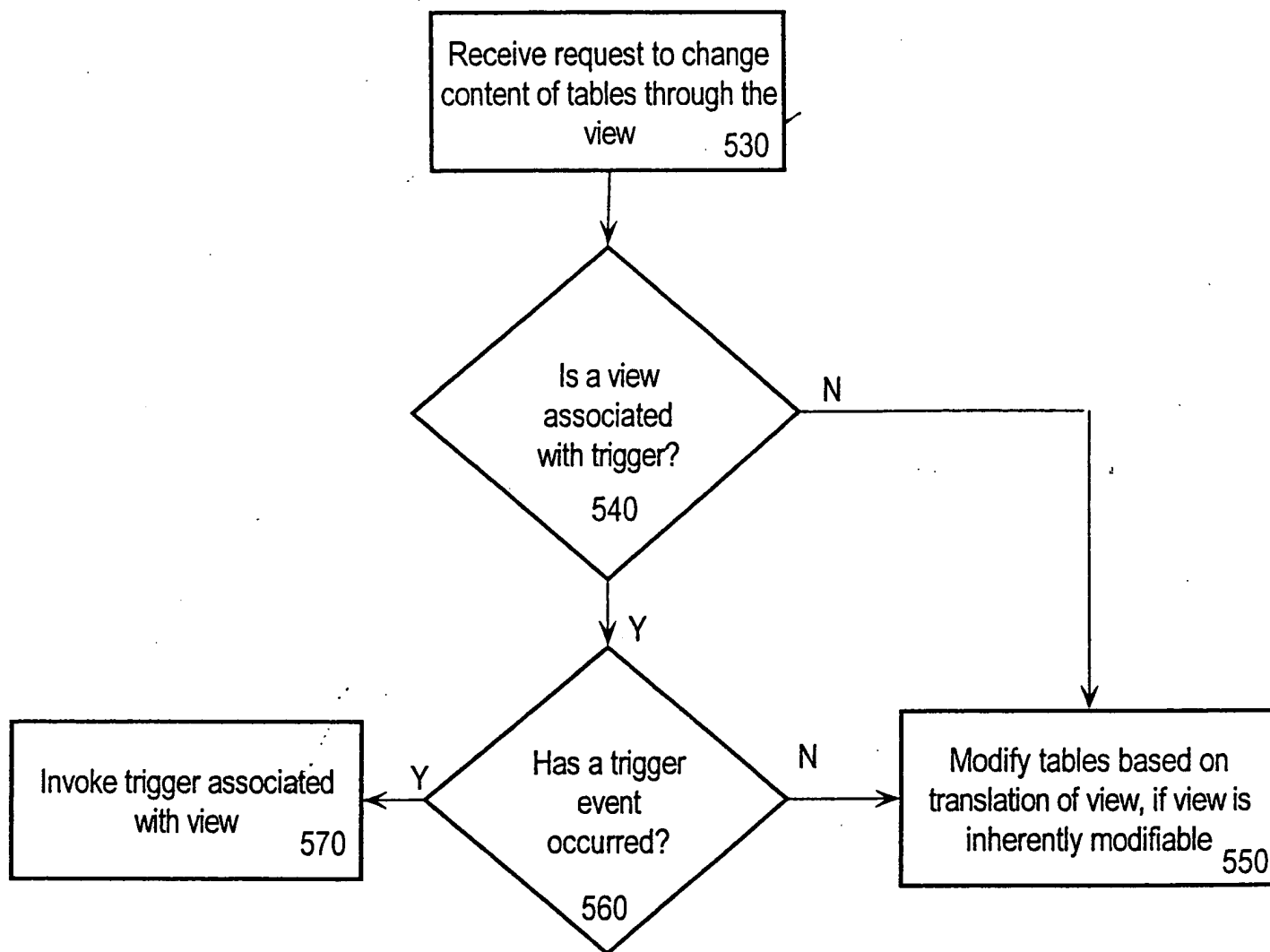
[illegible]

Fig. 5B

Create OV_PERSON of OT_FAMILY As

Select

OT_PERSON_ID(p.NAME, p.SSN),

CAST (Multiset (Select * From PERSON p1 Where
p.FATHER_SSN = p1.SSN Or
p.MOTHER_SSN = p1.SSN)

As PARENTS),

CAST (Multiset(Select * From PERSON p2 Where
p.SSN = p2.FATHER_SSN Or
p.SSN = p2.MOTHER_SSN)
AS CHILDREN)

)

From PERSON p;

Fig. 6A

Create Type OT_FAMILY as Object (

PERSON_ID OT_PERSON_ID,

PARENTS LIST_OF_PARENTS,

CHILDREN LIST_OF_CHILDREN,

);

FIG. 6B

Create Table PERSON (
NAME VARCHAR(30),
SSN VARCHAR(9),
FATHER_SNN VARCHAR(9),
MOTHER_SNN VARCHAR(9),
);

FIG. 6C

Create Type OT_PERSON_ID as Object (
NAME VARCHAR(30),
SSN VARCHAR(11)
);

FIG. 6D

Create LIST_OF_CHILDREN as Table of OT_PERSON_ID;

FIG. 6E

Create LIST_OF_PARENTS as VARRAY(2) of OT_PERSON_ID;

FIG. 6F